

PTO/SB/08 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT Date Submitted: September 15, 2003 (use as many sheets as necessary)		Complete If Known	
		Application Number	09/860,324
		Filing Date	05/07/2001
		First Named Inventor	William F. McDonald
		Group Art Unit	1714
		Examiner Name	Ana Lucrecia Woodward
		Attorney Docket Number	044829-0127
Sheet	1	of	1

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
KL		5,049,684	A	Tomibe et al.	09-17-1991	

Examiner Signature	<i>[Signature]</i>	Date Considered	10/2003
-----------------------	--------------------	--------------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 10 if possible. ⁶ Applicant is to place a check mark here if English language translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, D.C. 20231.

Received from <4143197016> at 9/15/03 2:16:13 PM [Eastern Daylight Time]

JUL 25 2003
 PATENT & TRADEMARK OFFICE

PTO/SB/08 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT Date Submitted: July 25, 2003 (use as many sheets as necessary)		Application Number	09/850,324
		Filing Date	05/07/2001
Sheet 1 of 4		First Name of Inventor	William F. McDonald
		Group Art Unit	1714
		Examiner Name	Ana Lucrecia Woodward
		Attorney Docket Number	044829-0127

RECEIVED
 JUL 29 2003
 GROUP 1700

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
<i>[Signature]</i>		6,340,465	B1	HSU LI-Chien et al.	01-22-2002	
<i>[Signature]</i>		6,319,674	B1	Fulcrand et al.	11-20-2001	
<i>[Signature]</i>		6,232,434	B1	Stamler et al.	05-15-2001	
<i>[Signature]</i>		6,232,336	B1	Hrabie et al.	05-15-2001	
<i>[Signature]</i>		6,224,579	B1	Modak et al.	05-01-2001	
<i>[Signature]</i>		6,162,487	A	Darouiche	12-19-2000	
<i>[Signature]</i>		6,121,027	A	Clapper et al.	09-19-2000	
<i>[Signature]</i>		6,087,462	A	Bowers et al.	07-11-2000	
<i>[Signature]</i>		6,056,967	A	Steuerle et al.	05-02-2000	
<i>[Signature]</i>		5,962,520	A	Smith et al.	10-05-1999	
<i>[Signature]</i>		5,762,638	A	Shikani et al.	06-09-1998	
<i>[Signature]</i>		5,709,672	A	Illner	01-20-1998	
<i>[Signature]</i>		5,650,447	A	Keefer et al.	07-22-1997	
<i>[Signature]</i>		5,641,855	A	Scherr et al.	06-24-1997	
<i>[Signature]</i>		5,405,919	A	Keefer et al.	04-11-1995	
<i>[Signature]</i>		5,344,411	A	Domb Abraham J et al.	09-06-1994	
<i>[Signature]</i>		5,328,698	A	Onwumere, et al.	07-12-1994	
<i>[Signature]</i>		5,316,912	A	Heimgartner et al.	05-31-1994	
<i>[Signature]</i>		5,069,907	A	Mixon et al.	12-03-1991	
<i>[Signature]</i>		4,999,210	A	Solomon et al.	03-12-1991	
<i>[Signature]</i>		4,987,181	A	Bichon et al.	01-22-1991	
<i>[Signature]</i>		4,865,870	A	Hu et al.	09-12-1989	
<i>[Signature]</i>		4,786,556	A	Hu et al.	11-22-1988	
<i>[Signature]</i>		4,720,512	A	Hu et al.	01-19-1988	
<i>[Signature]</i>		4,678,660	A	McGary et al.	07-07-1987	
<i>[Signature]</i>		4,675,347	A	Mochizuki et al.	06-23-1987	
<i>[Signature]</i>		4,642,104	A	Sakamoto et al.	02-10-1987	
<i>[Signature]</i>		4,605,564	A	Kulla, et al.	08-12-1986	
<i>[Signature]</i>		4,442,133	A	Greco et al.	04-10-1984	
<i>[Signature]</i>		4,419,444	A	Quash	12-06-1983	
<i>[Signature]</i>		4,357,476	A	Reinchr et al.	10-02-1982	
<i>[Signature]</i>		4,323,557	A	Rosso et al.	04-06-1982	
<i>[Signature]</i>		4,310,509	A	Berglund et al.	01-12-1982	
<i>[Signature]</i>		4,302,368	A	Dudley et al.	11-24-1981	
<i>[Signature]</i>		4,217,338	A	Quash	08-12-1980	
<i>[Signature]</i>		4,128,633	A	Lorenz, et al.	12-05-1978	
<i>[Signature]</i>		3,695,921	A	Shepherd Thomas et al.	10-03-1972	

Examiner Signature	<i>[Signature]</i>	Date Considered	10/2003
--------------------	--------------------	-----------------	---------

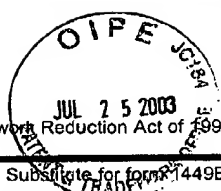
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 18 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, D.C. 20231.

001.1461706.1



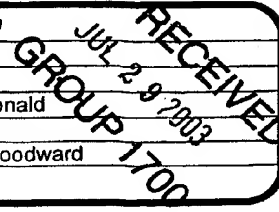
PTO/SB/08 (08-00)

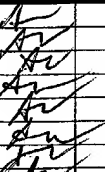
Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT Date Submitted: July 25, 2003 (use as many sheets as necessary)		Complete if Known	
		Application Number	09/850,324
Sheet	2	Filing Date	05/07/2001
	of	First Name of Inventor	William F. McDonald
	4	Group Art Unit	1714
		Examiner Name	Ana Lucrecia Woodward
		Attorney Docket Number	044829-0127



FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
			WO 95/05400		3M	02-23-1995		
			WO 86/02561			05-09-1986		
			WO 94/13870		Warner Lambert	06-23-1994		
			EP 0 969 056		Aventis Res & Tech GMBH	01-05-2000		
			EP 0 882 461		Unitika LTD	12-09-1998		
			GB 2 225 580		Smith & Nephew	06-06-1990		
			GB 2 153 235		Meadox Medicals Inc.	08-21-1985		
			GB 2 084 466			04-15-1982		

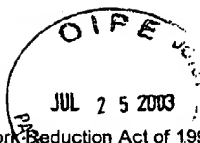
NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
Ar		Satoh et al., "Immobilization of Saccharides and Peptides on 96-Well Microtiter Plates with Methyl Vinyl ether-Maleic Anhydride Copolymer", Anal. Biochem., 260, 96-102, 1998.	
Ar		Vercruysse et al., "Synthesis and in Vitro Degradation of New Polyvalent Hydrazide Cross-Linked Hydrogels of Hyaluronic Acid", Bioconj. Chem., 8, 686-694, 1997.	
Ar		O'Shannessy et al., Immobilization of Glycoconjugates by Their Oligosaccharides: Use of Hydrazido-Derivatized Matrices, Anal. Biochem., 191, 1-8, 1990.	
Ar		Ito et al., Preparation of High Capacity Affinity Adsorbents Using New Hydrazino-Carriers and Their Use for Low and High Performance Affinity Chromatography of Lectins, J. Biochem. (Tokyo), 99, 1267-1272.	
Ar		Junowicz et al., The Derivatization of Oxidized Polysaccharides for Protein Immobilization and Affinity Chromatography Biochim. Biophys. Acta 428, 157-165, 1976.	

Examiner Signature		Date Considered	10/20/03
--------------------	--	-----------------	----------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, D.C. 20231. 001.1461706.1



PTO/SB/08 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute Form 1449B/PTO		Complete if Known			
INFORMATION DISCLOSURE STATEMENT BY APPLICANT Date Submitted: July 25, 2003 (use as many sheets as necessary)		Application Number	09/850,324		
		Filing Date	05/07/2001		
		First Name of Inventor	William F. McDonald		
		Group Art Unit	1714		
		Examiner Name	Ana Lucrecia Woodward		
Sheet	3	of	4	Attorney Docket Number	044829-0127

RECEIVED JUL 29 2003 GROUP 1700

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
		Miron et al., Polyacrylyhydrazido-Agarose: Preparation via Periodate Oxidation and use for Enzyme Immobilization and Affinity Chromatography, J. Chromatogr., 215, 55-63, 1981.	
		Heimgartner, et al., Polyacrylic Polyhydrazides as Reagents for Detection of Glycoproteins, Anal. Biochem., 181, 182-189, 1989.	
		Fleminger et al., Oriented Immobilization of Periodate-Oxidized Monoclonal Antibodies on Amino and Hydrazide Derivatives of Eupergit C, Applied Biochem., 23, 123-137, 1990.	
		Del Rosso et al., Binding of the Basement-Membrane Glycoprotein Lamnin to Glycosaminoglycans, Biochem. J., 199, 699-704, 1981.	
		Henderson et al., Immobilised Phosphines Incorporation the Chiral Biopolymers Chitosan and Chitin, J. Chem. Soc., Chem. Commun., 9, 1863-1864, 1994.	
		Petach et al., A New Coupling Reagent for the Covalent Immobilisation of Enzymes, J. Chem. Soc., Chem. Commun., 17, 2181-2182, 1994.	
		Cochrane et al., Application of Tris(hydroxymethyl) Phosphine as a Coupling Agent for Alcohol Dehydrogenase Immobilization, Enzyme Microbial Technol., 18, 373-378, 1996.	
		Inman et al., Synthesis of Large Haptenic Compounds Having a Covalent Functional Group That Permits Covalent Linkage to Proteins, Cell Surfaces, Immunochemistry, 10, 153-163, 1973.	
		Ellis et al., Water-Soluble Tris(hydroxymethyl) Phosphine Complexes with Nickel, Palladium, and Platinum, Inorg. Chem., 31, 3026-3033, 1992.	

Examiner Signature		Date Considered	10/2003
--------------------	--	-----------------	---------

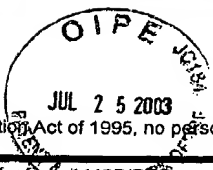
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, D.C. 20231.

001.1461706.1






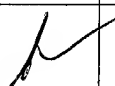
 JUL 25 2003

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

 PTO/SB/08 (08-00)
 Approved for use through 10/31/2002. OMB 0651-0031
 U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT Date Submitted: July 25, 2003 (use as many sheets as necessary)		Complete if Known <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Application Number</td> <td>09/850,324</td> </tr> <tr> <td>Filing Date</td> <td>05/07/2001</td> </tr> <tr> <td>First Named Inventor</td> <td>William F. McDonald</td> </tr> <tr> <td>Group Art Unit</td> <td>1714</td> </tr> <tr> <td>Examiner Name</td> <td>Ana Lucrecia Woodward</td> </tr> <tr> <td>Attorney Docket Number</td> <td>044829-0127</td> </tr> </table>		Application Number	09/850,324	Filing Date	05/07/2001	First Named Inventor	William F. McDonald	Group Art Unit	1714	Examiner Name	Ana Lucrecia Woodward	Attorney Docket Number	044829-0127
Application Number	09/850,324														
Filing Date	05/07/2001														
First Named Inventor	William F. McDonald														
Group Art Unit	1714														
Examiner Name	Ana Lucrecia Woodward														
Attorney Docket Number	044829-0127														
Sheet	4	of	4												

RECEIVED
 JUL 29 2003
 GROUP 1700

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
		Lin et al., Preparation of Surface-modified Albumin Nanospheres, Biomaterials, V. 18, N. 7, 559-565, 1997.	
		Marconi et al., New Polyurethane Compsitions able to bond high Amounts of both Albumin and Heparin, V. 16, N. 6, 449-456, 1995.	
		Oswald et al., "Properties of a Thermostable B-Glycosides Immobilized Using Tris(hydroxymethyl) Phosphine as a Highly Effective Coupling Agent", Enzyme Microbial Technol., 23, 14-19, 1998.	
		Isosaki et al., "Immobilization of Protein Ligands with Methyl Vinyl Ether-maleic Anhydride Copolymer, J. Chromatogr., 597, 123-128, 1992.	

Examiner Signature		Date Considered	10/2003
--------------------	---	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.
¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.
⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.
 Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, D.C. 20231.
 001.1461706.1

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT Date Submitted: April 17, 2003 (use as many sheets as necessary)			Complete if Known	
			Application Number	09/850,324
			Filing Date	05/07/2001
			First Named Inventor	William F. McDonald
			Group Art Unit	1714
			Examiner Name	To Be Determined
			Attorney Docket Number	044829-0127
Sheet	1	of	1	

RECEIVED
APR 23 2002
TG 1700

[illegible][illegible]

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ^o

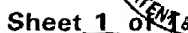
Examiner Signature		Date Considered	2/2003
-----------------------	---	--------------------	--------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the (indication of the year of the reign of the Emperor must precede the serial number of the patent document).

Standard S1.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.
 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark here if
 English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, D.C. 20231.



U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

SERIAL NO.
09/850,324

APPLICANT
William F. McDonald et al.

(Use several sheets if necessary)

FILING DATE
May 7, 2001

GROUP

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER

DATE CONSIDERED

* EXAMINER: Initial if a citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 680336.91159